

Description

Background of invention

The vast majority of building apartments have no space and no provision for stationary washers or washer/dryer combo. So the laundry in such apartments is a problem. Portable washer is a kind of solution, but it is always on your way when used and it always takes your valuable storage space when unused.

Brief description of the prior arts.

Washer/dryer combo, with condensation device similar to *Automatic washing machine fitted for drying* and described in a patent # 5,588,313 do not requires ventilation, but is too heavy and bulky to be a convenient portable appliance.

Well known are also built-in appliances like *Compact top-loading dishwasher suitable for fitting inside furniture units* described in a patent # 4,739,781. This design requires separate kitchen cabinet.

It would be nice to have “Zero-space” stationary washer or washer/dryer combination, which could be located in a bathroom and does not require any additional provision for installation.

Summary of the Invention

The invention relates to the field of automatic front-loading washing machines and combo units.

The front-loading sink/laundry combo consists of an automatic washing machine with or without drying capacity and the sink with a faucet, which is mounted on the top of the cabinet. All this is assembled in one integrated unit (concealed laundry). This combination utilizing the space under the sink for laundry machine by re-shaping both P-trap and the sink and provide the user with “Zero-space” stationary washer or washer/dryer combo. It is connected to water supply by flexible hoses and to waste line via modified flexible P-trap.

It resembles a vanity with built-in laundry machine under the sink. It supposes to replace any standard sink giving customer additional convenience of laundry.

An additional advantage of this invention is in increased speed of the drying because a part of hot and humid air from a dryer is directed to the waste water line by-passing the P-trap and utilizing waste line’s ventilation pipes.

The check valve prevents bad waste line smell from returning back to dryer.

Brief description of the drawings.

Fig. 1 is an illustrative view of sink and washer combination.

Fig. 2 is an illustration of connections to a waste line.

Description of the preferred embodiment.

The front-loading sink/laundry combo consists of an automatic washing machine having a drum 1 and the sink 2 with a faucet 3, which is mounted on the top of the cabinet 4. All this is assembled in one integrated unit.

The unit is connected to water supply by flexible hoses (hook-ups) like typical sink and to waste line 7 by drainpipe 14 via modified flexible P-trap 5. P-trap 5 is located under the sink 2 flush to the wall 6.

The unit could be equipped with a heater, blower and vent and operate like washer-dryer combo.

In a process of drying all hot and humid air could be directed outside via retractable ventilation hose.

When outside ventilation is not available a condensation device could be used. In order to increase the speed of the drying process with condensation device at least part of the hot and humid air is directed via ventilation hose 9 and coupling 10 to the waste line's ventilation pipe 8 bypassing the P-trap 5.

The check valve 11 prevents bad waste line smell from returning back to dryer.

In order to make unit more compact the sink and the axle of the drum are pitched on the same way.

In preferred embodiment the drum 1 is permanently suspended inside of the cabinet 4. However, it could be mounted pivotally or removable. This gives customer convenience of better access for loading/unloading operations by removing the laundry (drum section) out of the sink by sliding out of the cabinet or rotation around vertical or horizontal axle.

In order to minimize the force required for relocation of the drum while assuring the safety of operations different types of motion control and position-securing devices could be used.

Flexible P-trap 5 is positioned flush to the wall 6, which assures connection during vibration and gives more space for a drum.

In order to decrease vibration of the cabinet the lower part of a P-trap made with tank-like expansion 13, which accumulates a few gallons of running wastewater.

This tank 13, which is attached to the cabinet, increases its weight and stability. In addition the cabinet is connected to the wall with vibration-absorbing anchors.